2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Fauquier

STREAM NAME: Thumb Run

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E01R_THU01A00

SEGMENT SIZE: 6.91 - Miles

INITIAL LISTING: 1996 **TMDL Schedule** - 2002

UPSTREAM LIMIT:

DESCRIPTION: Confluence w/West Branch Thumb Run

RIVER MILE: 6.91

LATITUDE: 38.79028 **LONGTITUDE:** -77.97028

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Rappahannock River

RIVER MILE: 0.00

LATITUDE: 38.71167 **LONGTITUDE:** -77.99583

Segment begins at the confluence of West Branch Thumb Run and East Branch Thumb Run downstream to its confluence to Rappahannock River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The DEQ maintains an ambient water quality monitoring station (3-THU004.69) at Route 770. The monitoring data from this station revealed the following during the 2002 305(b) report assessment period:

1) Partially supporting of the Clean Water Act's (CWA's) Swimming Use goal due to sufficient fecal coliform bacteria exceedances (4 of 16 samples - 25%);

2) Fully supporting but threatened of the CWA's Aquatic Life Use goal due to an exceedance of the ER-M for zinc (410 ppm, dry weight) in sediment collected in June, 1997.

IMPAIRMENT SOURCE NPS

A fecal coliform TMDL for the Thumb Run watershed was delevoped and submitted to the U.S. EPA on April 29, 2002 and approved May 31, 2002. The sources of fecal coliform bacteria requiring reductions are livestock and wildlife waste delivered directly to the stream, and human contributions from straight pipes.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Fauquier

STREAM NAME: Thumb Run, West Branch

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E01R_THW01A02

SEGMENT SIZE: 10.1 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of West Branch Thumb Run

RIVER MILE: 10.10

LATITUDE: 38.88528 **LONGTITUDE:** -78.03611

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence of West Branch to the mainstem Thumb Run

RIVER MILE: 0.00

LATITUDE: 38.79028 **LONGTITUDE:** -77.97028

Segment starts at the headwaters of West Branch Thumb Run downstream to the confluence of West Branch to the mainstem Thumb Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (2 of 8 samples) were recorded at DEQ's ambient water quality monitoring station (3-THW004.68) at Route 635 to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE NPS

A fecal coliform TMDL for the Thumb Run watershed was delevoped and submitted to the U.S. EPA on April 29, 2002 and approved May 31, 2002. The sources of fecal coliform bacteria requiring reductions are livestock and wildlife waste delivered directly to the stream, and human contributions from straight pipes.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Fauquier, Rappahannock

STREAM NAME: Rappahannock River

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E01R_RPP01A00

SEGMENT SIZE: 2.17 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Jordan River

RIVER MILE: 175.58

LATITUDE: 38.76000 **LONGTITUDE:** -78.02778

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary

RIVER MILE: 173.41

LATITUDE: 38.74083 **LONGTITUDE:** -78.01944

Segment begins at the confluence of Jordan River to Rappahannock River at rivermile 175.58 and continues downstream to its confluence with an unnamed tributary at rivermile 173.41.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (3 of 20 samples - 15%) were recorded at DEQ's ambient water quality monitoring station (3-RPP175.51) at Route 647 to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Fauquier

STREAM NAME: Carter Run

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E02R_CAE01A00

SEGMENT SIZE: 3.55 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** - 2004

UPSTREAM LIMIT:

DESCRIPTION: Confluence of South Run

RIVER MILE: 3.55

LATITUDE: 38.72222 **LONGTITUDE:** -77.91083

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Rappahannock River

RIVER MILE: 0.00

LATITUDE: 38.69611 **LONGTITUDE:** -77.90694

Segment begins at the confluence of South Run to Carter Run and continues downstream to its confluence with the Rappahannock River.

Segment length was extended from the 1998 303(d) listing based on hydrology, considering significant tributaries upstream from the monitoring station. The prior 2.67-mile segment started at the confluence of Locust Run to Carter Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (3 of 18 samples - 16.7%) were recorded at DEQ's ambient water quality monitoring station (3-CAE000.25) at Route 688 to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Fauquier

STREAM NAME: Great Run

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E02R_GRT01A00

SEGMENT SIZE: 2.76 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** - 2004

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary

RIVER MILE: 2.76

LATITUDE: 38.64750 **LONGTITUDE:** -77.84750

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Rappahannock River

RIVER MILE: 0.00

LATITUDE: 38.62083 **LONGTITUDE:** -77.86028

Segment begins at the confluence of an unnamed tributary to Great Run, approximately 1.0 rivermile upstream of Rt. 687, and continues downstream to its confluence with the Rappahannock River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The DEQ maintains an ambient water quality monitoring station (3-GRT001.70) at Route 687. The monitoring data from this station revealed the following during the 2002 305(b) report assessment period:

1) Partially supporting of the Clean Water Act's (CWA's) Swimming Use goal due to sufficient fecal coliform bacteria exceedances (3 of 18 samples - 16.7%);

2) Fully supporting but threatened of the CWA's Aquatic Life Use goal due to sufficient exceedances of the phosphorous screening level of 200 ug/L (3 of 19 samples - 15.8%).

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Culpeper

STREAM NAME: Hazel River

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E04R_HAZ01A00

SEGMENT SIZE: 5.58 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Blackwater Creek

RIVER MILE: 21.61

LATITUDE: 38.58000 **LONGTITUDE:** -78.10167

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary

RIVER MILE: 16.03

LATITUDE: 38.59028 **LONGTITUDE:** -78.03861

Segment begins at the confluence of Blackwater Creek to Hazel River and continues downstream to its confluence to an unnamed tributary at rivermile 16.03.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (3 of 21 samples - 14.3%) were recorded at DEQ's ambient water quality monitoring station (3-HAZ018.29) at Route 729 to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Rappahannock

STREAM NAME: Rush River

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E05R_RUS02A02

SEGMENT SIZE: 4.55 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary

RIVER MILE: 8.78

LATITUDE: 38.73472 **LONGTITUDE:** -78.19306

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Big Branch

RIVER MILE: 4.23

LATITUDE: 38.69639 **LONGTITUDE:** -78.15472

Segment begins at the confluence of an unnamed tributary to Rush River and continues downstream to its confluence with Big Branch, approximately 0.98 rivermiles upstream of Route 621.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The DEQ maintains an ambient water quality monitoring station (3-RUS005.66) at Route 211/522. The monitoring data from this station revealed the following during the 2002 305(b) report assessment period:

1) Partially supporting of the Clean Water Act's (CWA's) Swimming Use goal due to sufficient fecal coliform bacteria exceedances (3 of 18 samples - 16.7%);

2) Fully supporting but threatened of the CWA's Aquatic Life Use goal due to exceedances of the ER-M for total DDT (46.1 ppb, dry weight), DDT (7 ppb, dry weight), and DDE (20 ppb, dry weight) in sediment collected in July, 1997.

In addition, citizen monitoring station 3RUS-6-SOS below Old Washington Road finds medium probability of adverse conditions. As a result, this stream segment was assessed as fully supporting but threatened of the CWA's Aquatic Life Use goal in the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Culpeper, Rappahannock

STREAM NAME: Thorton River

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E06R_THO02A02

SEGMENT SIZE: 5.4 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Mill Run

RIVER MILE: 8.65

LATITUDE: 38.63639 **LONGTITUDE:** -78.08306

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary

RIVER MILE: 3.25

LATITUDE: 38.62639 **LONGTITUDE:** -78.02694

Segment begins at the confluence of Mill Run to Thornton River, at rivermile 8.65, and continues downstream to its confluence with an unnamed tributary, at rivermile 3.25.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (3 of 20 samples - 15%) were recorded at DEQ's ambient water quality monitoring station (3-THO006.50) at Route 729 to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Culpeper

STREAM NAME: Muddy Run

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E07R_MUU01A00

SEGMENT SIZE: 5.55 - Miles

INITIAL LISTING: 1996 **TMDL Schedule** - 2004

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary

RIVER MILE: 5.55

LATITUDE: 38.54500 **LONGTITUDE:** -77.98250

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Hazel River

RIVER MILE: 0.00

LATITUDE: 38.56167 **LONGTITUDE:** -77.91111

Segment begins at the confluence of an unnamed tributary with Muddy Run, approximately 0.22 rivermiles upstream from the Route 229 bridge, and continues downstream to its confluence with the Hazel River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The DEQ maintains an ambient monitoring station (3-MUU000.82) at Route 625, and established a special study station (3-MUU004.98) at Route 630. Sufficient fecal coliform bacteria exceedances were recorded at both monitoring stations to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report. Five of 20 samples (25%) exceeded the instantaneous fecal coliform standard at station 3-MUU000.82, and 2 of 11 samples (18.2%) exceeded the standard at station 3-MUU004.98.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Culpeper

STREAM NAME: Muddy Run

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E07R_MUU02A02

SEGMENT SIZE: 3.12 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Muddy Run

RIVER MILE: 13.02

LATITUDE: 38.52778 **LONGTITUDE:** -78.07444

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence of Apperson Creek

RIVER MILE: 9.90

LATITUDE: 38.54583 **LONGTITUDE:** -78.03167

Segment begins at the headwaters of Muddy Run downstream to the confluence of Apperson Creek to Muddy Run at rivermile 9.9.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (2 of 11 samples - 18.2%) were recorded at DEQ's water quality monitoring station (3-MUU010.72) at Route 729 to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Fauquier

STREAM NAME: Browns Run

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E08R_BOS01A02

SEGMENT SIZE: 2.39 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary

RIVER MILE: 2.39

LATITUDE: 38.54278 **LONGTITUDE:** -77.73056

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Marsh Run

RIVER MILE: 0.00

LATITUDE: 38.52389 **LONGTITUDE:** -77.76139

Segment begins at the confluence of an unnamed tributary to Browns Run, near the Route 17 bridge, and continues downstream to the confluence with Marsh Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (4 of 7 samples) were recorded at DEQ's water quality monitoring station (3-BOS000.72) at Route 653 to assess this stream segment as not supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Fauquier

STREAM NAME: Marsh Run

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E08R_MAH01A00

SEGMENT SIZE: 8.16 - Miles

INITIAL LISTING: 1994 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Craig Run & Marsh Run

RIVER MILE: 8.16

LATITUDE: 38.56389 **LONGTITUDE:** -77.75833

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Rappahannock River

RIVER MILE: 0.00

LATITUDE: 38.47417 **LONGTITUDE:** -77.77639

Segment begins at the confluence of Craig Run to Marsh Run and continues downstream to its confluence with the Rappahannock River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting, Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform - 8.16 miles, Dissolved Oxygen - 2.25 miles

The DEQ maintains an ambient monitoring station (3-MAH000.19) at Route 651, and established a special study station (3-MAH004.18) at Route 668. The monitoring data from these stations revealed the following during the 2002 305(b) report assessment period:

1) Not supporting of the Clean Water Act's (CWA's) Swimming Use goal due to fecal coliform bacteria exceedances. Five of 18 samples (27.8%) exceeded the instantaneous fecal coliform bacteria standard at station 3-MAH000.19, and 3 of 9 samples (33.3%) exceeded the standard at station 3-MAH004.18;

2) Partially supporting of the CWA's Aquatic Life Use goal due violations of the dissolved oxygen (DO) water quality criteria recorded at station 3-MAH000.19. Two of 18 samples (11.1%) were below the minimum DO level (4.0 mg/L) for Class III waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards. This segment is considered partially supporting of the Aquatic Life Use in the 2.25-mile reach beginning at the confluence of Harpers Run to Marsh Run and continuing downstream to the confluence with the Rappahannock River.

This segment was first listed for a swimming use impairment due to fecal coliform bacteria exceedances in the 1998 303(d) report. A fecal coliform TMDL is scheduled to be developed by 2010. The TMDL to address the aquatic life use impairment may extend to 2014.

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Culpeper

STREAM NAME: Mountain Run

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E09R_MTN01A00

SEGMENT SIZE: 7.4 - Miles

INITIAL LISTING: 1994 **TMDL Schedule** - 2001

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Flat Run

RIVER MILE: 7.40

LATITUDE: 38.46833 **LONGTITUDE:** -77.82694

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Rappahannock River

RIVER MILE: 0.00

LATITUDE: 38.45028 **LONGTITUDE:** -77.76250

Segment begins at the confluence of Flat Run to Mountain Run and continues downstream to its confluence with the Rappahannock River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (9 of 53 samples - 17%) were recorded at DEQ's water quality monitoring station (3-MTN000.59) at Route 620 to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE NPS

This segment was listed in the 1998 303(d) report for both fecal coliform bacteria and general standard (benthic) impairments. A fecal coliform TMDL for the this segment was approved by EPA on 4/27/01. The segment was de-listed for the benthic impairment by EPA on 4/18/01.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Stafford, Fauquier

STREAM NAME: Deep Run

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E10R_DPR01A00

SEGMENT SIZE: 4.83 - Miles

INITIAL LISTING: 1996 **TMDL Schedule** - 2004

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Green Branch

RIVER MILE: 4.83

LATITUDE: 38.46667 **LONGTITUDE:** -77.63472

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Rappahannock River

RIVER MILE: 0.00

LATITUDE: 38.41028 **LONGTITUDE:** -77.63556

Segment begins at the confluence of Green Branch to Deep Run, at rivermile 4.75, downstream to its confluence to the Rappahannock River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (5 of 16 samples - 31.3%) were recorded at DEQ's water quality monitoring station (3-DPR001.70) at Route 17 to assess this stream segment as not supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Madison

STREAM NAME: Rapidan River

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E11R_RAP01A00

SEGMENT SIZE: 4.8 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Kinsey Run

RIVER MILE: 81.06

LATITUDE: 38.42361 **LONGTITUDE:** -78.36778

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence of Garth Run

RIVER MILE: 76.26

LATITUDE: 38.36611 **LONGTITUDE:** -78.37028

Segment begins at the confluence of Kinsey Run to Rapidan River, at rivermile 81.06, downstream to its confluence to Garth Run, approx. one rivermile downstream of Rt. 662.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (3 of 18 samples - 16.7%) were recorded at DEQ's water quality monitoring station (3-RAP077.28) at Route 662 to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Orange

STREAM NAME: Blue Run

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E13R_BLU01A00

SEGMENT SIZE: 4.21 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Barbour Run

RIVER MILE: 4.21

LATITUDE: 38.20111 **LONGTITUDE:** -78.22306

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Rapidan River

RIVER MILE: 0.00

LATITUDE: 38.24556 **LONGTITUDE:** -78.19222

Segment begins at the confluence of Barbour Run with Blue Run, approximately 0.13 rivermiles upstream of the Southern Rail Road bridge, and continues downstream to its confluence with the Rapidan River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (5 of 22 samples - 22.7%) were recorded at DEQ's water quality monitoring station (3-BLU002.60) at Route 20 to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Madison, Orange

STREAM NAME: Rapidan River

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E13R_RAP01A00

SEGMENT SIZE: 7.5 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Poplar Run

RIVER MILE: 47.41

LATITUDE: 38.26583 **LONGTITUDE:** -78.15667

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Robinson River

RIVER MILE: 39.91

LATITUDE: 38.31167 **LONGTITUDE:** -78.09444

Segment begins at the confluence of Poplar Run to the Rapidan River and continues downstream to its confluence with the Robinson River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (7 of 49 samples - 14.3%) were recorded at DEQ's water quality monitoring station (3-RAP045.08) at Route 15 to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Madison

STREAM NAME: Robinson River

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E14R_ROB01A00

SEGMENT SIZE: 3.65 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Rose River

RIVER MILE: 24.65

LATITUDE: 38.47222 **LONGTITUDE:** -78.31528

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Leathers Run

RIVER MILE: 21.0

LATITUDE: 38.44583 **LONGTITUDE:** -78.26611

Segment begins at the confluence of the Rose River, just downstream of Route 670, and continues downstream to the confluence with Leathers Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The DEQ maintains an ambient water quality monitoring station (3-ROB024.06) at Route 649. The monitoring data from this station revealed the following during the 2002 305(b) report assessment period:

1) Partially supporting of the Clean Water Act's (CWA's) Swimming Use goal due to sufficient fecal coliform bacteria exceedances (5 of 21 samples - 23.8%);

2) Fully supporting but threatened of the CWA's Aquatic Life Use goal due to sufficient exceedances of the phosphorous screening level of 200 ug/L (3 of 21 samples - 14.3%).

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Madison

STREAM NAME: Little Dark Run

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E15R_LDR01A00

SEGMENT SIZE: 4.26 - Miles

INITIAL LISTING: 1994 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Little Dark Run

RIVER MILE: 4.26

LATITUDE: 38.36611 **LONGTITUDE:** -78.26889

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Dark Run

RIVER MILE: 0.00

LATITUDE: 38.38306 **LONGTITUDE:** -78.21139

Segment begins at the headwaters of Little Dark Run and continues downstream to its confluence with Dark Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform - 4.26 miles

The DEQ maintains an ambient monitoring station (3-LDR000.70) at Route 680, and established a special study station (3-LDR003.19) at Route 634. The monitoring data from these stations revealed the following during the 2002 305(b) report assessment period:

1) Partially supporting of the Clean Water Act's (CWA's) Swimming Use goal due to sufficient fecal coliform bacteria exceedances. Four of 21 samples (19%) exceeded the instantaneous fecal coliform bacteria standard at station 3-LDR000.70, and 2 of 9 samples exceeded the standard at station 3-LDR003.19;

2) Fully supporting but threatened of the CWA's Aquatic Life Use goal due to sufficient exceedances of the phosphorous screening level of 200 ug/L (2 of 10 samples - 20%). This segment is considered fully supporting but threatened of the Aquatic Life Use in the 2.27-mile reach beginning at the headwaters of Little Dark Run continuing downstream to the confluence of an unnamed tributary to Little Dark Run at rivermile 2.17, approximately 0.25 rivermiles upstream from Route 722.

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Orange

STREAM NAME: Mountain Run

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E17R_MTR01A00

SEGMENT SIZE: 9.79 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Mill Run

RIVER MILE: 9.79

LATITUDE: 38.30639 **LONGTITUDE:** -77.96278

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Mine Run

RIVER MILE: 0.00

LATITUDE: 38.37722 **LONGTITUDE:** -77.84278

Segment begins at the confluence of Mill Run to Mountain Run, approximately 0.25 rivermiles downstream of Route 617, and continues downstream to its confluence with Mine Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (6 of 23 samples - 26.1%) were recorded at DEQ's water quality monitoring station (3-MTR003.51) at Route 611 to assess this stream segment as not supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Orange

STREAM NAME: Mine Run

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E17R_MIR01A00

SEGMENT SIZE: 9.95 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Cormack Run

RIVER MILE: 9.95

LATITUDE: 38.29000 **LONGTITUDE:** -77.84778

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Rapidan River

RIVER MILE: 0.00

LATITUDE: 38.37806 **LONGTITUDE:** -77.84278

Segment begins at the confluence of Cormack Run to Mine Run, approximately 0.6 rivermiles upstream of Route 20, and continues downstream to its confluence with the Rapidan River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (6 of 22 samples - 27.3%) were recorded at DEQ's water quality monitoring station (3-MIR004.05) at Route 611 to assess this stream segment as not supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Culpeper, Spotsylvania

STREAM NAME: Rapidan River

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E18R_RAP03A02

SEGMENT SIZE: 2.47 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Wilderness Run

RIVER MILE: 7.78

LATITUDE: 38.36000 **LONGTITUDE:** -77.70139

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence of Middle Run

RIVER MILE: 5.31

LATITUDE: 38.37083 **LONGTITUDE:** -77.66833

Segment begins at the confluence of Wilderness Run to the Rapidan River, at rivermile 7.78, and continues downstream to its confluence with Middle Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (9 of 51 samples - 17.6%) were recorded at DEQ's water quality monitoring station (3-RAP006.53) at Route 610 to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Fredericksburg, Spotsylvania, Stafford, Caroline, King George

STREAM NAME: Rappahannock River

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAN-E20E_RPP03A02

SEGMENT SIZE: 5.22 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: The fall line at Route 1

RIVER MILE: 110.6

LATITUDE: **LONGTITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence of Mill Creek with the Rappahannock River

RIVER MILE: 78.94

LATITUDE: **LONGTITUDE:**

Segment extends from the fall line at Route 1 downstream to the confluence of Mill Creek with the Rappahannock River, downstream from the Route 301 bridge.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The listing of this stream segment is based on data from the following DEQ monitoring stations: 3-RPP107.91, 3-RPP104.47, 3-RPP098.81, 3-RPP091.55, and 3-RPP080.19. Based on monitoring data during the 2002 305(b) report assessment period, this segment was assessed as Partially Supporting the Clean Water Act's (CWA) Swimming Use goal due to sufficient fecal coliform bacteria exceedances recorded at each of the identified stations. The fecal coliform bacteria exceedance rates for each station are summarized below:
- 3-RPP107.91, 5 of 48 samples (10.4%);
- 3-RPP104.47, 5 of 48 samples (10.4%);
- 3-RPP098.81, 9 of 48 samples (18.8%);
- 3-RPP091.55, 7 of 52 samples (13.5%)
- 3-RPP080.19, 6 of 51 samples (11.8%).

All stations, except 3-RPP080.19, were identified in Attachment B of the June 1999 Consent Decree and are therefore subject to the TMDL schedule outlined by the consent decree.

In addition, this segment is considered fully supporting but threatened of the CWA's Aquatic Life Use goal due to results from the Cheseapeake Bay Monitoring Program network of probabilistic stations representing the estuarine benthic community in the tidal freshwater segment of the Rappahannock River. This segment is nested within the larger area affected by the Chesapeake Bay probabilistic monitoring assessment.

These waters are also designated as nutrient enriched waters (NEW-15) in 9 VAC 25-260-350 of the Virginia

Water Quality Standards. DEQ nutrient water quality monitoring data for the 2002 water quality assessment period indicates that this segment is fully supporting of the Clean Water Act's Aquatic Life Use goal with respect to nutrients.

IMPAIRMENT SOURCE Source Unknown

The source of the fecal coliform impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Stafford

STREAM NAME: Claiborne Run

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAN-E20R_CLB01A00

SEGMENT SIZE: 5.12 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** - 2004

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary

RIVER MILE: 5.12

LATITUDE: 38.35889 **LONGTITUDE:** -77.46583

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Rappahannock River

RIVER MILE: 0.00

LATITUDE: 38.30306 **LONGTITUDE:** -77.45583

Segment begins at the confluence of an unnamed tributary to Claiborne Run, near Stafford High School, and continues downstream to its confluence with the Rappahannock River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: pH

Sufficient violations of the pH water quality criteria were recorded at DEQ's ambient monitoring station (3-CLB000.50) at the Access Road off Route 3 to assess this segment as partially supporting of the Clean Water Act's (CWA's) Aquatic Life Use goal in the 2002 305(b) report. Two of 18 samples (11.1%) were below the lower range (6.0-9.0 SU) of the pH water quality criteria for Class III waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards.

Claiborne Run was initially listed in the 1998 303(d) report based on fecal coliform bacteria exceedances recorded at monitoring station 3-CLB000.50. Data from the 2002 305(b) water quality assessment monitoring period (1/1/96 through 12/31/00) indicates the stream is now fully supporting of the Clean Water Act's Swimmable Use goal. Two of 20 samples (10%) exceeded the instantaneous fecal coliform bacteria standard in the 2002 water quality assessment monitoring period. DEQ is petitioning to have this segment delisted from the 303(d) report for the fecal coliform bacteria exceedances.

Claiborne Run is a tributary to the tidal freshwater Rappahannock River. These waters are designated as nutrient enriched waters (NEW-15) in 9 VAC 25-260-350 of the Virginia Water Quality Standards. DEQ nutrient water quality monitoring data for the 2002 water quality assessment period indicates that this segment is fully supporting of the Clean Water Act's Aquatic Life Use goal with respect to nutrients.

Note: The pH TMDL is scheduled to be developed by 2014.

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Essex

STREAM NAME: Occupacia Creek

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E22R_OCC01A98

SEGMENT SIZE: 2.76 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Hunters Millpond Dam

RIVER MILE: 10.50

LATITUDE: 38.04060 **LONGTITUDE:** -77.00650

DOWNSTREAM LIMIT:

DESCRIPTION: Tidal Limit

RIVER MILE: 7.80

LATITUDE: 37.05280 **LONGTITUDE:** -76.98740

Occupacia Creek from the Hunters Millpond Dam to the extent of tidal influences.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The segment was assessed partially supporting of the Aquatic Life use based on a pH standard violation rate of 6/29 at the Route 17 bridge (3-OCC010.47) (TMDL due 4/1/2010 because pH was listed as parameter of concern in the Plaintiff's List)

The segment was assessed partially supporting of the Swimmable use based on a fecal coliform violation rate of 3/28 at 3-OPP010.47 (TMDL due 4/1/2014).

IMPAIRMENT SOURCE Unknown

The pH violations in this segment are attributed to natural conditions. The source of the fecal coliform violations is considered unknown.

Continued monitoring to increase the data set and make a confident assessment is recommended. Targeted monitoring and wetland delineation may be necessary to identify the limits of the segment affected by natural conditions. Such segments should be reclassified as wetlands where appropriate.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Essex

STREAM NAME: Hoskins Creek

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E23E_HOK01A98

SEGMENT SIZE: 0.06 - Sq. Mi.

INITIAL LISTING: 1996 **TMDL Schedule** 2001 - 2010

UPSTREAM LIMIT:

DESCRIPTION: Town of Tappahannock STP

RIVER MILE: 3.00

LATITUDE: 37.91080 **LONGTITUDE:** -76.87840

DOWNSTREAM LIMIT:

DESCRIPTION: Rappahannock River confluence

RIVER MILE: 0.00

LATITUDE: 37.92190 **LONGTITUDE:** -76.85280

Segment begins at the Town of Tappahannock STP discharge, and extends downstream to its mouth at the Rappahannock River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

This segment was initially included on the 1994 303(d) list based on excessive fecal coliform standard violations recorded at the Rt. 360 bridge (3-HOK000.74).

For the 2002 cycle, the segment was assessed partially supporting of the Swimmable use support goal based on a fecal coliform standard violation rate of 12/59 recorded at 3-HOK000.74. The upstream limit was extended to the Town of Tappahannock STP in the 1998 cycle in recognition that the STP may be a contributing source, although this has not been verified.

Pfiesteria complex organisms were detected in water samples collected in the Rappahannock River off Hoskins Creek in September 1997.

IMPAIRMENT SOURCE Unknown, PS - Municipal

The source of the impairment is considered unknown. The Tappahannock STP may be a contributing source, but there is a tour boat dock and public boat landing at the Route 360 bridge, which may also be contributing sources, as well as unknown nonpoint sources near the monitoring station.

Targeted monitoring is necessary to further delineate the extent of impairment and to characterize its causes and sources.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Essex

STREAM NAME: Piscataway Creek

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E23E_PIS02A00

SEGMENT SIZE: 0.71 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Fall Line

RIVER MILE: 8.20

LATITUDE: 37.88090 **LONGTITUDE:** -76.88860

DOWNSTREAM LIMIT:

DESCRIPTION: Rappahannock River confluence

RIVER MILE: 0.00

LATITUDE: 37.90460 **LONGTITUDE:** -76.81070

Segment begins at the limit of tide and extends downstream to its mouth at the Rappahannock River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: pH

The tidal Piscataway Creek was assessed partially supporting of the Aquatic Life Use based on a pH violation rate of 2/18 at the Route 17 bridge (3-PIS004.79).

IMPAIRMENT SOURCE Unknown

The source of the impairment is considered unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Richmond

STREAM NAME: Cat Point Creek

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E23R_CAT01A98

SEGMENT SIZE: 4.99 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2001 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Ruin Branch

RIVER MILE: 14.10

LATITUDE: 38.07720 **LONGTITUDE:** -76.84370

DOWNSTREAM LIMIT:

DESCRIPTION: Canal Swamp

RIVER MILE: 11.00

LATITUDE: 38.02833 **LONGTITUDE:** -76.82083

Segment begins at Ruin Branch and extends downstream to Canal Swamp.

CLEAN WATER ACT GOAL AND USE SUPPORT:
Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: pH

Assessed not supporting of the Aquatic Life use support goal based on a pH standard violation rate of 30/57 recorded at monitoring station 3-CAT011.62, located at the Route 637 bridge.

During the 1998 cycle, Canal Swamp was mistakenly called Bellfield Creek.

IMPAIRMENT SOURCE Unknown

The source of the impairment is considered unknown.

Targeted monitoring is necessary to further delineate the extent of impairment and to characterize its causes and sources.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Essex

STREAM NAME: Mount Landing Creek

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E23R_MTL01A98

SEGMENT SIZE: 1.19 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2001 - 2004

UPSTREAM LIMIT:

DESCRIPTION: First tributary above the Route 716 bridge

RIVER MILE: 5.63

LATITUDE: 37.96360 **LONGTITUDE:** -76.94980

DOWNSTREAM LIMIT:

DESCRIPTION: Tidal Limit

RIVER MILE: 4.44

LATITUDE: 37.96290 **LONGTITUDE:** -76.93040

The segment starts at the first tributary upstream of the Route 716 bridge, and extends downstream to the effect of tide.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: pH, Dissolved Oxygen

Assessed not supporting of the Aquatic Life use support goal based on a pH violation rate of 32/63 and a dissolved oxygen violation rate of 17/66 recorded at monitoring station 3-MTL004.82, located at the Route 716 bridge.

The segment location was changed during the year 2002 cycle because it was determined that the tidal limit is actually located at approximately river mile 4.44 and that the swamp conditions that may cause the DO impairment extend upstream of the bridge.

IMPAIRMENT SOURCE Unknown

The source of the pH impairment is considered unknown. Mount Landing Creek is also subject to a warm weather D.O. depression at the monitoring station that may be the results of the natural swampwater conditions or some other upstream nutrient source.

Targeted monitoring is necessary to further delineate the extent of impairment and to characterize its causes and sources.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Essex

STREAM NAME: Piscataway Creek

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E23R_PIS01A98

SEGMENT SIZE: 3.5 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2001 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Sturgeon Swamp

RIVER MILE: 10.50

LATITUDE: 37.88200 **LONGTITUDE:** -76.93600

DOWNSTREAM LIMIT:

DESCRIPTION: Tidal Limit

RIVER MILE: 8.20

LATITUDE: 37.88090 **LONGTITUDE:** -76.88860

From Sturgeon Creek confluence downstream to extent of tide.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: pH, Sediments - Zinc

Assessed not supporting of Aquatic Life use support goal based on a pH standard violation rate of 4/7 recorded at monitoring station 3-PIS009.24, located at the Route 691 bridge. The same segment is considered threatened of the Aquatic Life Use support goal based on an exceedance of the NOAA ER-M screening value for zinc in a sediment sample collected in 1993. The screening value was not exceeded in a subsequent sample collected in 1994.

IMPAIRMENT SOURCE Unknown

The source of the impairment is considered unknown, but is suspected to be caused by natural swampwater conditions. The source of the zinc in sediments is considered unknown.

Additional sediment sampling is recommended to verify whether zinc in the sediments is a problem and to further delineate the segment, if any.

Targeted monitoring is necessary to further delineate the extent of the pH impairment and to characterize its causes and sources.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Essex, Richmond

STREAM NAME: Rappahannock River

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E24E_RPP01A98

SEGMENT SIZE: 118.51 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Totuskey Creek

RIVER MILE:

LATITUDE: 37.86590 **LONGTITUDE:** -76.75250

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth at Chesapeake Bay

RIVER MILE: 0.00

LATITUDE: 37.58750 **LONGTITUDE:** -76.28890

The mainstem of the Rappahannock River from Totuskey Creek to its mouth, including the Corrotoman River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, Nutrients, Turbidity, Benthic Community Impairment

The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ because of dissolved oxygen violations and nutrient enrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek.

In the 2002 cycle, dissolved oxygen violations were noted in the bottom waters of varied stations downstream of Lancaster Creek in E25E, which is downstream of the original DEQ listing. Benthic community impairment was noted in two fixed Chesapeake Bay study stations. The EPA length has been maintained although the upstream areas of the segment show no dissolved oxygen problems.

The Corrotoman River was included in the 1998 EPA overlist. Dissolved oxygen violations in bottom waters were confirmed at 3-CRR003.38 in the 2002 cycle (20/128 in bottom waters), however the violation rate at 3-CRR001.38 was acceptable. The chlorophyll A violation rate was acceptable at both 3-CRR001.38 and 3-CRR003.38.

DEQ's addition of turbidity as an impairment cause is based on the best scientific information available since the EPA overlisted this segment in 1999 for nonattainment of aquatic life use due to nutrients.

IMPAIRMENT SOURCE Natural Conditions, EPA listing

The recorded DO violations are believed to be caused by a naturally occurring ridge in the river bed that prevents tidal flushing of the lower water column in this segment of the Rappahannock River. The low DO

bottom water causing the DO violations is believed to be bottom water from the Chesapeake Bay. This bottom water flows into the Rappahannock with the incoming tide, and then gets trapped by the naturally occurring ridge. Natural conditions are thus considered the main source of the recorded violations. However, it is possible that the low DO conditions is exacerbated by nutrient loadings in the water body.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Richmond

STREAM NAME: Totuskey and Richardson Creek

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E24E_TOT02A00,
VAP-E24E_TOT01A00

SEGMENT SIZE: 1.4 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Tidal limit

RIVER MILE:

LATITUDE: 37.91580 **LONGTITUDE:** -76.66290

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth at the Rappahannock River

RIVER MILE: 0.00

LATITUDE: 37.86590 **LONGTITUDE:** -76.75250

The tidal portions of Totuskey and Richardson Creeks.

CLEAN WATER ACT GOAL AND USE SUPPORT:
Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The segment was assessed as partially supporting the Swimmable Use because of 3 violations in 26 fecal coliform samples collected at the Route 3 bridge (3-TOT005.11).

IMPAIRMENT SOURCE NPS/PS

Source is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Richmond

STREAM NAME: Bookers Mill Stream

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E24R_BMS01A98

SEGMENT SIZE: 6.22 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 6.22

LATITUDE: 37.88120 **LONGTITUDE:** -76.53490

DOWNSTREAM LIMIT:

DESCRIPTION: Totuskey Creek

RIVER MILE: 0.00

LATITUDE: 37.90970 **LONGTITUDE:** -76.62100

Bookers Mill Stream from its headwaters to its mouth at the confluence with Totuskey Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:
Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Bookers Mill Stream was assessed partially supporting of the Swimmable Use support goal based on a fecal coliform violation rate of 5/23 recorded at the Route 612 bridge (3-BMS002.00).

Assessed threatened of the aquatic life use goal because of total phosphorus 4/24 at 3-BMS002.00.

IMPAIRMENT SOURCE Unknown

The source of the impairment is considered unknown. Continued monitoring is necessary to increase the data set size and ensure a confident assessment.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Middlesex

STREAM NAME: Robinson Creek

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E25E_ROS01A00

SEGMENT SIZE: 0.28 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Tidal limit

RIVER MILE: Notice

LATITUDE: 37.65830 **LONGTITUDE:** -76.60070

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE: 177

LATITUDE: 37.65290 **LONGTITUDE:** -76.57870

The boundaries of the condemned area are described in VDH Notice and Description of Shellfish Area Condemnation 177.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

VDH-DSS Shellfish Condemnation 177, 8/1/2000

The segment was assessed partially supporting of the Swimmable Use support goal based on a fecal coliform violation rate of 3/20 recorded at the end of Route 680 (3-ROS001.35.)

IMPAIRMENT SOURCE NPS

The source of the impairment is attributed to nonpoint source runoff.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Richmond

STREAM NAME: Farnham Creek

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E25E_FAM01A98

SEGMENT SIZE: 0.43 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: Notice

LATITUDE: 37.85890 **LONGTITUDE:** -76.64840

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary (Mouth at Rappahannock River)

RIVER MILE: 070

LATITUDE: 37.82410 **LONGTITUDE:** -76.68140

The boundaries of the condemned area are described in VDH Notice and Description of Shellfish Area Condemnation 070.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

VDH-DSS Shellfish Condemnation 070, 10/17/2000

FC 4/19 at 3-FAM002.62

IMPAIRMENT SOURCE NPS

Source is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Middlesex

STREAM NAME: Lagrange Creek

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E25R_LGG01A98

SEGMENT SIZE: 2.72 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 6.89

LATITUDE: 37.69000 **LONGTITUDE:** -76.68010

DOWNSTREAM LIMIT:

DESCRIPTION: Tidal Limit

RIVER MILE: 3.75

LATITUDE: 37.66660 **LONGTITUDE:** -76.58820

Lagrange Creek from the headwaters to the extent of tide at approximately river mile 3.75.

CLEAN WATER ACT GOAL AND USE SUPPORT:
Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

LaGrange Creek was assessed partially supporting of the Aquatic Life Use support goal based on a dissolved oxygen violation rate of 3/24 recorded at the Route 610 bridge (3-LGG004.54).

IMPAIRMENT SOURCE Unknown

The source of the dissolved oxygen standard violations is considered unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Lancaster, Middlesex

STREAM NAME: Rappahannock River

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E26E_RPP06A98

SEGMENT SIZE: 31.68 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: River mile 9.42

RIVER MILE: 9.42

LATITUDE: 37.62780 **LONGTITUDE:** -76.44170

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth

RIVER MILE: 0.00

LATITUDE: 37.58750 **LONGTITUDE:** -76.28890

The segment consists of the mainstem Rappahannock River between river mile 9.42 and the mouth at the Chesapeake Bay.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs, Fish Tissue - Arsenic

The segment was initially listed as threatened on the 303(d) list due to PCBs in Striped Bass at 3-RPP008.42 in 1995. PCB screening values were also exceeded in 5 out of 10 samples at 3-RPP000.01 in 1994, which caused the segment to be downgraded to partially supporting and extended to the mouth of the Rappahannock River.

The EPA screening value for arsenic was exceeded in flounder at MA97-0926.

A Level 2 fish tissue study is necessary to further delineate the affected area and determine sources.

IMPAIRMENT SOURCE unknown

Source is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Lancaster

STREAM NAME: Belwood Swamp

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E26R_BLD01A98

SEGMENT SIZE: 3.75 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: McMahon Swamp

RIVER MILE: 3.75

LATITUDE: 37.78300 **LONGTITUDE:** -76.49790

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth

RIVER MILE: 0.00

LATITUDE: 37.76550 **LONGTITUDE:** -76.48510

Segment starts at McMahon Swamp and extends downstream to mouth at Western Branch Corrotoman River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Evaluated not supporting based on 7 violations of the fecal coliform standard recorded in 26 samples collected at monitoring station 3-BLD000.58, located at the Route 3 bridge.

IMPAIRMENT SOURCE Unknown

The source of the impairment is considered unknown.

Continued monitoring is recommended to increase the data set and to make a confident assessment.